

Docket No. 279414US0PCT



**MAIL STOP PCT**

**IPR Rec'd PCT/PTO 10 FEB 2005 PCT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Toru OKAYAMA, et al.

SERIAL NO: 10/553,982

GAU:

FILED: October 20, 2005

EXAMINER:

FOR: FIVE-MEMBERED HETEROCYCLIC DERIVATIVE

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☒ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**


- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 279414US0PCT		SERIAL NO. 10/553,982	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Toru OKAYAMA, et al.		FILING DATE October 20, 2005	
				GROUP			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL KBY		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6 306 883	10/23/01	ADAMS et al. (equivalent of WO 95 31451 -English abstract only)			
	AB	5 462 960	10/31/95	BARTH et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
		AC	2586713	12/05/96	JP (equivalent of EP 0 418 845- English abstract only)		NO
		AD	97 29774	08/21/97	WO (English abstract only)		NO
		AE	01 16132	03/08/01	WO (English abstract only)		NO
		AF	2004 065374	08/05/04	WO (English abstract only)		NO
		AG	2004 099130	11/18/04	WO (English abstract only)		NO
		AH	03/027076	04/03/03	WO (English abstract only)		NO
		AI	96 03388	02/08/96	WO (English abstract only)		NO
		AJ	00 69948	11/23/00	WO (English abstract only)		NO
		AK	2 83373	03/23/90	JP (with English abstract)		NO
		AL	92 20651	11/26/92	WO (English abstract only)		NO
		AM	94 27597	12/08/94	WO (English abstract only)		NO
		AN	93 14082	07/22/93	WO (English abstract only)		NO
		AO	03 040110	05/15/03	WO (English abstract only)		NO
		AP	6 73014	03/15/94	JP (with English abstract & equivalent of EP 0 576 357)		NO
		AQ	95 15316	06/08/95	WO (English abstract only)		NO
		AR	98 56377	12/17/98	WO (English abstract only)		NO
		AS	1 142 889	10/10/01	EP (English abstract only)		NO
		AT	1 104 758	06/06/01	EP (English abstract only)		NO
		AU	01 40214	06/07/01	WO (English abstract only)		NO
		AV	98 52937	11/26/98	WO (English abstract only)		NO
		AW	98 52941	11/26/98	WO (English abstract only)		NO
		AX	01 87880	11/22/01	WO (English abstract only)		NO
		AY	98 52940	11/26/98	WO (English abstract only)		NO
		AZ	99 58523	11/18/99	WO (English abstract only)		NO
		AAA	50 121269	09/23/75	JP (English abstract only & equivalent of GB 1 490 771)		NO
		AAB	03 027370	02/05/91	JP (English abstract only & equivalent of EP 0 377 457 -English abstract only)		NO
		AAC	2004 060367	07/22/04	WO (English abstract only)		NO
		AAD	11 193281	07/21/99	JP (English abstract only & equivalent of WO 99 21555 -English abstract only)		NO
		AAE	00 63294	10/26/00	WO (English abstract only)		NO
					Additional References sheet(s) attached		
Examiner /Kristin Bianchi/					Date Considered 10/09/2008		

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 279414US0PCT		SERIAL NO. 10/553,982	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Toru OKAYAMA, et al.			
				FILING DATE October 20, 2005		GROUP	
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
/K.B./ ↓	AAF	Antiplatelet Trialists' Collaboration, "Collaborative overview of randomised trials of antiplatelet therapy- I: Prevention of death, myocardial infarction, and stroke by prolonged antiplatelet therapy in various categories of patients", BMJ, vol. 308, pages 81-106 1994					
	AAG	DERRY et al. "Risk of gastrointestinal haemorrhage with long term use of aspirin: meta-analysis", BMJ, vol. 321, pages 1183-1187 2000					
	AAH	CATELLA-LAWSON. "Vascular biology of thrombosis: Platelet-vessel wall interactions and aspirin effects", Neurology, vol. 57, Suppl. 2, pages S5-S7 2001					
	AAI	PAIRET et al. "Measurement of Differential Inhibition of COX-1 and COX-2 and the Pharmacology of Selective Inhibitors. Drugs of Today, vol. 35, no. 4-5, pages 251-265 1999					
	AAJ	TSUJI et al. "Studies on Anti-Inflammatory Agents. IV. Synthesis and Pharmacological Properties of 1,5-Diarylpyrazoles and Related Derivatives", Chem. Pharm. Bull., vol. 45, no. 6, pages 987-995 1997					
	AAK	TANAKA et al. "Antiplatelet Agents Based on Cyclooxygenase Inhibition without Ulcerogenesis. Evaluation and Synthesis of 4,5-Bis(4-methoxyphenyl)-2-substituted-thiazoles", J. Med. Chem., vol. 37, pages 1189-1199 1994					
	AAL	MEANWELL et al. "Nonprostanoid Prostacyclin Mimetics. 3. Structural Variations of the Diphenyl Heterocycle Moiety", J. Med. Chem., vol. 35, pages 3498-3512 1992					
	AAM	MEANWELL et al. "Nonprostanoid Prostacyclin Mimetics. 2. 4,5-Diphenyloxazole Derivatives", J. Med. Chem., vol. 3483-3497 1992					
	AAN	MEANWELL et al. "Nonprostanoid Prostacyclin Mimetics. 5. Structure-Activity Relationships Associated with [3-{4-(4,5-Diphenyl-2-oxazolyl)-5-oxazolyl}phenoxy]acetic Acid", J. Med. Chem., vol. 36, pages 3884-3903 1993					
	AAO	MEANWELL et al. "Nonprostanoid Prostacyclin Mimetics. 4. Derivatives of 2-[3-{2-(4,5-Diphenyl-2-oxazolyl)ethyl}phenoxy]acetic Acid Substituted alpha to the Oxazole Ring", J. Med. Chem., vol. 36, pages 3871-3883 1993					
	AAP	SEILER et al. "2-[3-{2-(4,5-Diphenyl-2-Oxazolyl) Ethyl} Phenoxy] Acetic Acid (BMJ 42393): A New, Structurally-Novel Prostacyclin Partial Agonist: 1) Inhibition of Platelet Aggregation and Mechanism of Action", Thrombosis Research, vol. 74, no. 2, pages 115-123 1994					
	AAQ	MEANWELL et al. "Non-Prostanoid Prostacyclin Mimetics. 6. Derivatives of 2-[3-{2-(4,5-Diphenyl-2-Oxazolyl)Ethyl}Phenoxy]Acetic Acid Modified beta-to the Oxazole Ring", Drug Design and Discovery, vol. 11, pages 73-89 1994					
	AAR	"JTE-522: Antiinflammatory Cyclooxygenase-2 Inhibitor", Drugs of the Future, vol. 23, no. 6, pages 598-601 1998					
	AAS	TANAKA et al. "Studies on Anti-platelet Agents. V. Synthesis and Structure-Activity Relationship of 3-Substituted 5,6-Bis(4-methoxyphenyl)-1,2,4-triazines", Chem. Pharm. Bull., vol. 42, no. 9, pages 1835-1840 1994					
	AAT	PENNING et al. "Synthesis and Biological Evaluation of the 1,5-Diarylpyrazole Class of Cyclooxygenase-2 Inhibitors: Identification of 4-[5-(4-Methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide (SC-58635, Celecoxib)", J. Med. Chem., vol. 40, pages 1347-1365 1997					
AAU	LAN et al. "Structure-Activity Relationships of Pyrazole Derivatives as Cannabinoid Receptor Antagonists", J. Med. Chem., vol. 42, pages 769-776 1999						
AAV	TAKAHASHI et al. "FR167653, a p38 Mitogen-Activated Protein Kinase Inhibitor, Prevents Helicobacter pylori-induced Gastritis in Mongolian Gerbils", Journal of Pharmacology and Experimental Therapeutics, vol. 296, no. 1, pages 48-56 2001						
Examiner		/Kristin Bianchi/				Date Considered 10/09/2008	
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

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SHEET 3 OF 3

Form PTO 1449  
(Modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

279414US0PC1

SERIAL NO.

10/553,982

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Toru OKAYAMA, et al.

FILING DATE

October 20, 2005

GROUP

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

/K.B./

AAW

DOHI et al. "The anti-platelet actions of FR122047, a novel cyclooxygenase inhibitor", European Journal of Pharmacology, vol. 243, pages 179-184 1993

AAX

OCHI et al. "The analgesic effect profile of FR 122047, a selective cyclooxygenase-1 inhibitor, in chemical nociceptive models", European Journal of Pharmacology, vol. 391, pages 49-54 2000

AAY

"KBT-3022: Platelet Antiaggregatory Cyclooxygenase Inhibitor", Drugs of the Future, vol. 16, no. 2, pages 105-107 1991

AAZ

Drugs of the Future, vol. 26, no. 2, page 197 2001

BAA

RYNBRANDT et al. "Synthesis and Platelet Aggregation Inhibitory Activity of 4,5-Bis(aryl)-2-substituted-thiazoles", J. Med. Chem., vol. 24, pages 1507-1510 1981

BAB

TANEMOTO et al. "Clinical Study of KBT-3022: Platelet Aggregation Effects and Pharmacokinetics in Elderly (>65 Years of Age) and Nonelderly Patients with Chronic Arterial Occlusion", Current Therapeutic Research, vol. 61, no. 12, pages 891-900 2000

BAC

INOUE et al. "Synthesis and Antiplatelet Activity of 2-Amino-4,5-diphenylthiazole Derivatives", Yakugaku Zasshi, vol. 115, no. 8, pages 603-610, with English abstract 1995

BAD

TANAKA et al. "Studies on Anti-platelet Agents. IV. A Series of 2-Substituted 4,5-Bis(4-methoxyphenyl)pyrimidines as Novel Anti-platelet Agents", Chem. Pharm. Bull., vol. 42, no. 9, pages 1828-1834 1994

BAE

DANNHARDT et al. "Cyclooxygenase Inhibitors - current status and future prospects", Eur. J. Med. Chem., vol. 36, pages 109-126 2001

BAF

HAWKEY. "COX-2 Inhibitors", The Lancet, vol. 353, pages 307-314 1999

BAG

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BAL

BAK

Examiner

/Kristin Bianchi/

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10/09/2008

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U.S. PCT Application Serial No: 10/553,982

Filed: October 20, 2005

Toru OKAYAMA, et al.

Docket No. 279414US0PCT

#### STATEMENT OF RELEVANCY

- 1) References            have been cited in the International Search Report. A copy of these references is being submitted herewith.
- 2) References            have been cited in the corresponding            Search Report. A copy of these references is being submitted herewith.
- 3) References AC, AD, AAF-AAK are discussed in the specification. A copy of these references is being submitted herewith.
- 4) References AA, AB, AE-AAE, AAL-BAF are additional prior art known to Applicant. A copy of these references is being submitted herewith.



Docket No.: 279414US0PCT

Serial No.: 10/553,982

LIST OF RELATED CASES CITED BY  
APPLICANT UNDER 37 CFR 1.56

Inventor: Toru OKAYAMA, et al.

Filing Date: October 20, 2005

Group:

**LIST OF RELATED CASES**

<u>Examiner Initial</u>	<u>Docket No.</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Patent App. Publication No.</u>	<u>Inventor or Applicant</u>
/K.B./	279414US0PCT*	10/553,982	10/20/05		OKAYAMA, et al.
/K.B./	275332US0PCT	10/543,915	07/29/05		KANAYA, et al.

Examiner

/Kristin Bianchi/

Date Considered

10/09/2008

\*Present Application; listed for information  
NFO/hah